WHAT IS CLAIMED IS:

1. A Voice over Internet Protocol (VoIP) network interface, comprising:

a network interface that communicates with at least one VoIP terminal within a network to service packetized communications;

a backbone network interface communicatively coupled to the network interface to service the packetized communications;

a processing unit communicatively coupled to the network interface and to the backbone network interface;

whereby the processing unit determines a communication signature for each of the packetized communications; and

whereby the processing unit determines, based upon a corresponding communication signature, whether a packetized communication is a real-time communication.

2. The VoIP network interface of Claim 1, whereby the processor directs the network interface and the backbone interface to provide a minimal service level to the real-time communication.

3. The VoIP network interface of Claim 2, wherein in providing a minimal service level to the real-time communication, non real-time communications are identified and their service levels are reduced.

4. The VoIP network interface of Claim 2, wherein if the minimum service level to the real-time communication cannot be met, the processor that the real-time communication be rerouted via another servicing network.

5. The VoIP network interface of Claim 1, prioritizes the real-time communication over non real-time communications.

6. The VoIP network interface of Claim 1, wherein each packetized communication has associated therewith a pair of signatures, a receive signature corresponding to communications received from a corresponding VoIP terminal via the network interface and a transmit signature corresponding to communications received via the backbone interface and intended for the corresponding VoIP terminal.

7. The VoIP network interface of Claim 6, whereby the receive signature is primarily employed to determine whether the packetized communication is a real-time communication.

8. The VoIP network interface of Claim 6, receive signature indicates problem with VoIP network interface.

9. The VoIP network interface of Claim 6, transmit signature indicates problem with other links of communication path.

10. The VoIP network interface of Claim 1, the real-time packetized communication is an audio communication.

11. The VoIP network interface of Claim 1, the packetized communications is an audiovisual communication.

12. The VoIP network interface of claim 11, the audiovisual communication is a video conferencing communication.

13. A Wireless Local Area Network (WLAN) Access Point (AP), comprising:

a wireless interface that communicates with a plurality of wireless terminals on the WLAN to service a plurality of packetized communications;

a WLAN backbone network interface communicatively coupled to the wireless interface to service the plurality of packetized communications;

a processing unit communicatively coupled to the wireless interface and to the WLAN backbone network interface;

whereby the processing unit determines a communication signature for each of the plurality of packetized communications; and

whereby the processing unit determines, based upon at least one communication signature, that one of the packetized communications is being affected by a network impediment.

14. The WLAN Access Point of Claim 13, wherein the processing unit is operable to determines the network impediment based on the at least one communication signature.

15. The WLAN Access Point of Claim 14, wherein the processing unit determines the network impediment from a non-uniformity of receipt of the packetized communications from a near-end wireless terminal.

16. The WLAN Access Point of Claim 14, wherein the processing unit determines the network impediment from a non-uniformity of receipt of the packetized communications from a far end terminal.

17. The WLAN Access Point of Claim 14, wherein the processing unit determines the network impediment from a non-linearity of receipt of the packetized communications from a far end terminal.

18. The WLAN Access Point of Claim 14, wherein the processing unit determines the network impediment as being caused by a Wide Area Network servicing the packetized communications from the at least one communication signature of the packetized communications from a far end terminal.

19. The WLAN Access Point of Claim 14, wherein the processing unit identifies the network impediment from an out-of-order receipt of the packetized communications.

20. The WLAN Access Point of Claim 13, wherein each at least each communication signature associated with the packetized communication comprises:

a receive signature corresponding to communications received between the plurality of wireless terminals and the wireless interface; and

a transmit signature corresponding to communications received from the WLAN backbone network interface and destined for the corresponding wireless terminal.

21. The WLAN Access Point of Claim 20, wherein the processing unit determines if the network impediment resides within a wireless link between the AP and the wireless terminal from the receive signature.

22. The WLAN Access Point of Claim 20, wherein the processing unit identifies network impediments within the WLAN backbone network interface from the transmit signature.

23. The WLAN Access Point of Claim 20, wherein the processing unit identifies network impediments within a WLAN servicing a far end wireless terminal from the transmit signature.

24. A method of servicing real-time communications from a servicing Wireless Local Area Network (WLAN) Access Point (AP), comprising:

receiving outgoing user communications at the AP from a wireless terminal;

receiving incoming user communications at the AP for the wireless terminal from a WLAN backbone network interfaced with the AP;

selecting an initial coding scheme from a plurality of supported coding schemes with a programmable COder/DECoder (CODEC);

converting incoming user communications from packetized communications and outgoing user communications to packetized communications according to the selected coding scheme; and

exchanging packetized communications between the servicing AP and the WLAN terminal at a communication quality level;

exchanging packetized communications between the servicing AP and the WLAN backbone network at the communication quality level;

monitoring the communication quality level between the servicing AP and the WLAN terminal to determine the communication quality level delivered between the AP and WLAN terminal; and

revising the selected coding scheme from the plurality of supported coding schemes based upon the communication quality level delivered between the AP and WLAN terminal.

25. The method of Claim 24, further comprising:

exchanging packetized communications between the WLAN backbone network and a far end terminal;

monitoring a communication quality level between the WLAN backbone network and the far end terminal to determine the communication quality level delivered between the WLAN backbone network and the far end terminal; and

revising the selected coding scheme from the plurality of supported coding schemes based upon the communication quality level delivered between the WLAN backbone network and the far end terminal.

26. The method of Claim 24, wherein the supported coding schemes comprise at least one audio and/or video coding scheme selected from the group consisting of Huffman encoding, ITU-T G.711, u-law, A-law, CCITT G.721, CCITT G.723, ITU-T G.726, ITU-T G.723.1, ITU-T G.723.1A, ITU-T G.729, ITU-T G.729A, ITU-T G.729AB, ITU-T G.729E, ITU-T G.728, ITU-T G.722, ITU-T G.722.1, ITU-T G.722.2, GSM-EFR, GSM AMR, IMA/DVI ADPCM, Microsoft ADPCM,LPC-10E, CELP GSM 06.10, shorten, Real Audio, MPEG, ACE and MACE.

27. The method of Claim 24, further comprising monitoring the latency of an incoming jitter buffer and an outgoing jitter buffer to determine the communication quality level between the AP and WLAN terminal, and the communication quality level delivered between the WLAN terminal and the far end terminal.

28. The method of Claim 27, wherein the servicing AP emulates the incoming jitter buffer and the outgoing jitter buffer.

29. The method of Claim 27, wherein nodes located between network segments that couple the servicing AP and the far end terminal are operable to emulate the incoming jitter buffer and the outgoing jitter buffer to determine the communication quality level delivered along network segments between the AP and WLAN terminal.

30. The method of Claim 29, further comprising revising the selected coding scheme based on the communication quality

level delivered along network segments between the AP and WLAN terminal.

31. The method of Claim 24, further comprising

monitoring communications between a plurality of APs and the wireless terminal; and

selecting the servicing AP based upon an expected service quality level between the servicing AP and the wireless terminal.

32. The method of Claim 31, wherein monitoring the plurality of APs further comprises:

querying at least one of the plurality of APs to determine the expected service quality level from the AP; and

registering with a new servicing AP when the expected service quality level to be provided by the new servicing AP exceeds the expected service quality level provided by the servicing AP by a predetermined service quality level.

33. The method of Claim 32, the user communications are audio communications.

34. The method of Claim 32, the user communications are audiovisual communications.

35. The method of Claim 32, the audiovisual communications are video conferencing communications.

36. The method of Claim 32, wherein the user communications are video communications.

37. A Wireless Local Area Network (WLAN) Access Point (AP), comprising:

a wireless interface that communicates with a plurality of wireless terminals of the WLAN to service a plurality of packetized communications;

a WLAN backbone network interface communicatively coupled to the wireless interface to service the plurality of packetized communications;

a processing unit communicatively coupled to the wireless interface and to the WLAN backbone network interface;

whereby the processing unit determines a communication signature for each of the plurality of packetized communications; and

whereby the processing unit determines, based upon a corresponding communication signature, whether a packetized communication is a real-time communication.

38. The WLAN Access Point of Claim 37, whereby the processor directs the wireless interface and the WLAN backbone interface to provide a minimal service level to the real-time communication.

39. The WLAN Access Point of Claim 38, wherein in providing a minimal service level to the real-time communication, non real-time communications are identified and their service levels are reduced.

40. The WLAN Access Point of Claim 38, wherein if the minimum service level to the real-time communication cannot be met, the processor directs at least one other WLAN component to reroute the real-time communication via another servicing network.

41. The WLAN Access Point of Claim 37, prioritizes the real-time communication over non real-time communications.

42. The WLAN Access Point of Claim 37, wherein each packetized communication has associated therewith a pair of signatures, a receive signature corresponding to communications received from a corresponding wireless terminal via the wireless interface and a transmit signature corresponding to communications received via the WLAN backbone interface and intended for the corresponding wireless terminal.

43. The WLAN Access Point of Claim 42, whereby the receive signature is primarily employed to determine whether the packetized communication is a real-time communication.

44. The WLAN Access Point of Claim 42, receive signature indicates problem with wireless link of AP.

45. The WLAN Access Point of Claim 42, transmit signature indicates problem with other portions of communication path.

46. The WLAN Access Point of Claim 37, the real-time packetized communication is an audio communication.

47. The WLAN Access Point of Claim 37, the packetized communications is an audiovisual communication.

48. The WLAN Access Point of claim 47, the audiovisual communication is a video conferencing communication.